

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
23 October 2003 (23.10.2003)

PCT

(10) International Publication Number
WO 03/087160 A1

(51) International Patent Classification⁷: **C07K 14/75**,
A61K 38/17, A61P 7/00

(21) International Application Number: PCT/NL03/00293

(22) International Filing Date: 7 April 2003 (07.04.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
1020426 18 April 2002 (18.04.2002) NL

(71) Applicant (for all designated States except US): **NED-
ERLANDSE ORGANISATIE VOOR TOEGEPAST-
NATUURWETENSCHAPPELIJK ONDERZOEK TNO**
[NL/NL]; Schoemakerstraat 97, NL-2628 VK Delft (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **DE MAAT, Mon-
ica, Petronella, Maria** [NL/NL]; Mathenesserlaan 249,
NL-3021 HD Rotterdam (NL). **KOOLWIJK, Pieter**
[NL/NL]; Rottumstraat 4, NL-1825 NM Alkmaar (NL).

(74) Agent: **PRINS, A.W.**; Nieuwe Parklaan 97, NL-2587 BN
Den Haag (NL).

(81) Designated States (*national*): AE, AG, AL, AM, AT (uti-
lity model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (uti-
lity model), DE, DK (utility model), DK, DM, DZ, EC, EE
(utility model), EE, ES, FI (utility model), FI, GB, GD, GE,
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,
MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU,
SC, SD, SE, SG, SK (utility model), SK, SL, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: MODIFICATION OF THE PROPERTIES OF A FIBRIN MATRIX WITH RESPECT TO GROWTH AND INGROWTH
OF CELLS

(57) Abstract: A method for modifying the properties of a fibrin matrix relative to growth and ingrowth of cells, wherein for forming the fibrin matrix a fibrinogen is used consisting of a selected fibrinogen variant or a fibrinogen enriched or depleted in a selected fibrinogen variant. In particular, the use of high-molecular weight (HMW) fibrinogen leads to a fibrin having accelerated angiogenesis properties, while the use of low-molecular weight (LMW and/or LMW') fibrinogen leads to fibrin having decelerated angiogenesis properties. The use of HMW fibrinogen when setting up angiogenesis tests results in that the tests require less time. Fibrin sealants on the basis of HMW fibrinogen can be used for burns, to promote wound healing or to inhibit scar tissue. Fibrin sealants on the basis of LMW or LMW' fibrinogen are useful to inhibit adhesions and tumor growth, for instance after surgical operations.

WO 03/087160 A1